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Chairman

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Commissioner

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Commissioner

IN THE MATTER OF THE APPLICATION ) CASE NO. 116  
OF ALLEGHENY ENERGY SUPPLY ) DOCKET NOS: L-00000D-01-0116  
COMPANY, L.L.C., FOR A CERTIFICATE ) L-00000B-01-0116  
OF ENVIRONMENTAL COMPATIBILITY )  
FOR CONSTRUCTION OF A 1,080 MW )  
(NOMINAL) GENERATING FACILITY IN )

SECTION 35, TOWNSHIP 3 NORTH, ) **STAFF'S BRIEF SUPPORTING THE**  
RANGE 11 WEST IN LA PAZ COUNTY, ) **REQUEST FOR REVIEW**  
ARIZONA AND ASSOCIATED )  
TRANSMISSION LINE AND )  
SWITCHYARDS BETWEEN AND IN )  
SECTION 35, TOWNSHIP 3 NORTH, )  
RANGE 11 WEST AND SECTIONS 23-26, )  
TOWNSHIP 3 NORTH, RANGE 11 WEST )  
ALSO IN LA PAZ COUNTY, ARIZONA. )

Arizona Corporation Commission

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MAR 11 2002

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Staff of the Utilities Division ("Staff") of the Arizona Corporation Commission ("Commission") hereby submits its brief advocating denial of the Certificate of Environmental Compatibility ("CEC") granted by the Power Plant and Transmission Line Siting Committee ("Committee"). Staff would respectfully request that the Commission deny the CEC for the reasons outlined below.

Staff cannot support the La Paz project because the project poses a threat to the reliability of the Arizona system. Need cannot be accurately measured without considering the reliability impacts of adding generation. The technical study evidence admitted shows that transmission lines will be adversely impacted without facilities improvements being made. While Applicant will counter that the transmission providers ("TPs") will mandate that Allegheny, the sponsor of the La Paz project (and hereinafter referred to as "Applicant"), fund for upgrades, that will not solve the problem. That is because the technical studies are not taking into account some 8,000 megawatts ("MW") of generation and are therefore not looking at the overall impacts on the Arizona transmission system

1 that the La Paz project will be affecting. Furthermore, there is no guarantee that the technical studies  
2 themselves or the peer groups that will review those studies will view reliability from the standpoint  
3 of not limiting access to more economical and less polluting sources of generation, and ensuring that  
4 no remedial action schemes will be used for single contingency (N-1) outages. Market forces alone  
5 cannot ensure a robust environment under electric restructuring. The Commission clearly has the  
6 jurisdiction under its statutory authority to consider reliability impacts as they pertain and relate to the  
7 need for generation.

8 Even if the Arizona transmission system were upgraded to meet Staff's reliability standard,  
9 Staff could still not support the project. This is because Staff is concerned about the size of the Palo  
10 Verde Hub and how big that hub should get. This issue has been left unstudied. Staff has undergone  
11 efforts to have a study commenced on how big the Palo Verde Hub should get, and what measures  
12 are needed to improve the security and reliability of a hub the size of Palo Verde. Because of the  
13 importance of that hub, Staff believes it is precarious at best to continue to site power plants that will  
14 affect the system reliability at the Palo Verde Hub, without a study being completed.

15 Should this Commission decide to approve the CEC granted by the Committee, Staff would  
16 recommend that the Commission modify the CEC by substituting or adding the conditions listed in  
17 Appendix A, herein attached and incorporated by reference. Those conditions, at least, mandate that  
18 Applicant will address the concerns laid forth by Staff in the hearings before the Committee and  
19 summarized in this brief.

## 20 **STANDARD OF REVIEW**

21 The Committee has the statutory authority to approve or deny an application, and impose  
22 reasonable conditions upon a CEC it issues. A.R.S. § 40-360.06(A). In reaching its decision on an  
23 application, it is required to consider various factors identified in A.R.S. § 40-360.06. These factors  
24 cover a broad range of areas, including but not limited to the project's impact on the total  
25 environment and its technical practicability. A party dissatisfied with the Committee's decision may  
26 request review of the decision by the Commission. By statute, the Commission reviews the record  
27 before the Committee, complies with the same factors listed in A.R.S. § 40-360.06 and balances the  
28 broad public interest for the need for an adequate, economical and reliable energy supply of electric

1 power with the desire to minimize the effect thereof on the environment and ecology of the state.  
2 A.R.S § 40-360.07(B).

3 It is the standard of review in this case that is critically important. Staff believes that the  
4 Committee members can and should consider issues regarding reliability on the Arizona system as  
5 part of their analysis on whether to grant a CEC under A.R.S. § 40-360.06. As will be discussed  
6 below, there were indications during the Committee's deliberations that the reliability concerns put  
7 forward by Staff were to be given only limited weight in the ultimate decision. However, the  
8 Commission must consider these reliability impacts under A.R.S. § 40-360.07, as those issues  
9 represent one side of the balancing test that the Commission must perform. In other words, reliability  
10 is central to the Commission's analysis whereas the Committee has chosen to exercise discretion on  
11 how they want to deal with the issue of reliability.

12 In addition, the Committee heard evidence from Applicant supporting its case that its  
13 proposed project will be able to deliver its power and will have to undergo facilities improvements  
14 such that the physical transmission will not be overloaded. As will be discussed below, both Mr.  
15 Kevin Geraghty and Mr. Don Mundy testified extensively on behalf of Applicant about some of the  
16 reliability issues that are the focal point of Staff's concerns and analysis here. However, the  
17 Commission does have independent de novo review of the evidence presented on the record pursuant  
18 to A.R.S. § 40-360.07(B) and can make the ultimate decision on whether to approve, deny or modify  
19 the CEC granted by the Committee in this case. Based on the all the evidence and testimony  
20 presented before the Committee, Staff believes that this Commission should deny the CEC granted by  
21 the Committee. If the Commission decides to approve the CEC, Staff believes the conditions in  
22 Appendix A are supported by the record and address the concerns raised by Staff.

23 **BECAUSE GENERATION AND TRANSMISSION ARE INTERTWINED, RELIABILITY**  
24 **IMPACTS MUST ALWAYS BE CONSIDERED WHEN EXAMINING NEED**

25 Generation and transmission are forever married. One will always affect the other. As a  
26 result, one cannot consider proposed generation without looking at what it will do to transmission. If  
27 new generation adversely affects the transmission system, then that new generation has a negative  
28

1 impact on the overall reliability of the Arizona system. The evidence before the Committee and  
2 before this Commission shows that the La Paz project will jeopardize the physical integrity of the  
3 transmission system and will likely prevent other efficient plants access to transmission. As  
4 explained below, reliability and need are inextricably linked because generation and transmission  
5 cannot divorce one another. Appendix B portrays Arizona's Extreme High Voltage (EHV) system  
6 and some of the transmission import constrained areas<sup>1</sup>.

7         The need for power must be offset by the reliability impacts new generation causes. This is  
8 because new generation, if it interconnects in the wrong location, can inhibit access to other needed  
9 power to Arizona. Power can be physically constrained (not able to deliver via the transmission  
10 system) due to any number of factors. As a result, while there might be the need for more power, the  
11 particular location that new power will be delivered from can prevent other needed power from being  
12 delivered. In addition, there is a wrinkle to this equation in today's landscape. That is the concept of  
13 electric restructuring. Reliability must be redefined under this new arena. Per Staff's Biennial  
14 Transmission Assessment ("BTA"), reliability is broken down into two concepts, adequacy and  
15 security. Adequacy is having sufficient transmission import capacity to reliably serve all loads in a  
16 utility's service area without limiting access to more economical or less polluting remote generation  
17 (See BTA at 3). In other words, *the most efficient power plants must have access to the transmission*  
18 *grid and be able to serve load.* By efficiency, we mean able to produce the maximum power at the  
19 lowest cost (financial, environmental and otherwise).

20         One cannot truly understand the real impacts of new generation on the Arizona transmission  
21 system without taking into account *all* of the other generation that is either on or is going to be  
22 interconnected onto the Arizona system. This is precisely the problem with the scope of the technical  
23 studies undertaken by Southern California Edison ("SCE") for the La Paz project; it fails to look at  
24 the entire system and only views the La Paz project from the perspective of SCE's own system. As a  
25 result, the total impacts on the Arizona system cannot be accurately detailed by the SCE study.  
26 Despite any facilities improvements undertaken by SCE that Applicant will pay for, no guarantee  
27 exists that additional proposed generation will not be stranded at the Palo Verde Hub. Access is

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28 <sup>1</sup> Appendix B was part of Staff's Exhibit S-1 admitted into evidence.

1 undermined and the Arizona customer suffers from lack of adequate power from the most efficient  
2 plants. Applicants will counter that the transmission will follow generation and that the TPs will  
3 build additional transmission. However, the situation at the Palo Verde Hub suggests otherwise. As  
4 Staff outlines in the BTA, the Palo Verde Hub is constricted. See BTA at 34-36. The TPs and the  
5 power plants are not addressing that constriction in a timely fashion. Furthermore, the facilities  
6 improvements required might address stability limitations, but they might not enhance capacity  
7 equivalent to the total output of the La Paz plant. This will lead to further constriction at the hub with  
8 no panacea in sight. But without studying all the proposed generation at the hub, it is doubtful even  
9 stability concerns of the integrated system can be adequately addressed.

10 From a security perspective, the scope of SCE's study poses additional problems. Staff  
11 defines security as having sufficient transmission capacity to reliably deliver a plant's full output of  
12 generation without use of remedial action schemes or displacing apriori generation at the same  
13 interconnection for single contingency (N-1) outages. (BTA at 3). System security plus adequacy  
14 equals system reliability. Without looking at all the proposed generation sited to interconnect at the  
15 Palo Verde Hub, the SCE technical studies fail to ensure that any measure designed to prevent  
16 adverse impacts on the system will negate the need for remedial action schemes. Therefore, from  
17 Staff's perspective, system security is still jeopardized.

18 Because generation impacts transmission, the need for additional efficient power must always  
19 be tempered with how it will affect the reliability of transmission as a whole. Mr. Don Mundy may  
20 be absolutely correct when he justifies the need for the La Paz project from a generation perspective,  
21 but if La Paz adversely affects the Arizona transmission system by either physically inhibiting other's  
22 use of the system or by stranding other efficient power supply sources, the Arizona system is  
23 deprived of reliable power. This is contrary to system reliability in the electric restructuring  
24 landscape and offsets the need factor. The adverse transmission impacts lie at the heart of Staff's  
25 position to not support this project.

26 ...

27 ...

28 ...

1 **THE RELIABILITY CONCERNS PRESENTED ON THE RECORD SUPPORT THE**  
2 **ADOPTION OF STAFF'S PROPOSED CONDITIONS TO THE LA PAZ PROJECT**

3 As explained above, Staff's main concern focuses on the physical constriction at the Palo  
4 Verde Hub and the fact that the interconnection studies undertaken by SCE do not consider impacts  
5 on the Arizona System. Mr. Kevin Geraghty testified about the system impact studies ("SIS") and  
6 facilities studies that were being performed by SCE (Tr. at 147-48; 1011-21). A copy of the  
7 preliminary system impact study was admitted as Applicant's Exhibit A-29 (Tr. at 1027). That study  
8 did not include 8,000 MW proposed to interconnect at the Palo Verde Hub (See "Exhibit A-29" at 3;  
9 Tr. at 1022). Even without including that proposed generation at the Palo Verde Hub, the study  
10 showed that, under certain scenarios, both the Palo Verde to Devers 500 kv line ("PV/D") and the  
11 Palo Verde to N. Gila 500 kV line ("PV/NG") could be overloaded based on the ratings of those  
12 lines. (See Exhibit A-29 at iii, 9, 11).

13 Mr. Jerry Smith for Staff testified extensively about the transmission constraints at the Palo  
14 Verde Hub and the concerns Staff had regarding the results of the SIS performed by SCE. Mr. Smith  
15 stated that reliability is looked at from the standpoints of adequacy and security, meaning the  
16 assurance that sufficient generation and sufficient transmission capacity exists to meet the needs of  
17 consumers and that the system can continuously provide service, despite disturbances, within the safe  
18 and normal operation of the system. (Tr. at 1273-74). Mr. Smith's testimonial definitions of  
19 adequacy and security mirror those within the BTA. (See BTA at 3). Mr. Smith testified that  
20 constraints within the transmission system could jeopardize the safe and reliable operation of the  
21 electric grid even when a particular plant demonstrates the ability to deliver its particular electrons to  
22 a market. (Tr. at 1275-76).

23 The problem in this case, as Mr. Smith of Staff testified to, is that the generation from La Paz  
24 will certainly displace additional apriori generation at the Palo Verde Hub. (Tr. at 1277, 1280). This  
25 will add to the constriction at the hub. (Id.) The added generation from La Paz can also adversely  
26 impact the stability limitations on the transmission lines. (Tr. at 1305-06). The physical impacts will  
27 likely interfere with the goal of electric restructuring, which is to ensure all generators can physically  
28 deliver their power so that the most economical and most efficient power sources are able to get on  
the system and compete effectively. (Tr. at 1277). In other words, to have robust competition is the

1 key to a successful deregulated market. The key to such a market is to have a marketplace big  
2 enough, so that the most efficient power plants may join the fray as competitive entities. The  
3 marketplace here is transmission capacity. As the United States Supreme Court noted recently when  
4 discussing the purpose of FERC Order No. 888:

5       The key to competitive bulk power markets is opening up transmission services.  
6       Transmission is the vital link between sellers and buyers. To achieve the benefits of  
7       robust, competitive bulk power markets, all wholesale buyers and sellers must have  
8       *equal access* to the transmission grid. Otherwise, efficient trades cannot take place  
9       and ratepayers will bear unnecessary costs. Thus, market power through control of  
10      transmission is the single greatest impediment to competition. Unquestionably, this  
11      market power is still being used today, or can be used, discriminatorily to block  
12      competition.

13      New York v. Federal Energy Regulatory Commission, Nos. 00-568, 00-809, 2002 WL  
14      331835 at \*7, quoting Notice of Proposed Rulemaking, FERC Stats. & Regs.,  
15      Proposed Regs., 1988-1999, 32,514, p. 33,047, 60 Fed. Reg. 17662<sup>2</sup>.

16      The responsibility is one for both the TPs and generation entities and either or both could exert  
17      market power. (Tr. at 1275). As Mr. Smith's analysis of Exhibit A-29 shows, the La Paz project  
18      presents a roadblock to this goal<sup>3</sup>.

19      Mr. Smith testifies that Exhibit A-29, which is the SIS, shows that inadequate transmission  
20      capability exists to support Applicant's project. (Tr. at 1298). The report concludes that the La Paz  
21      project will have an adverse impact on generation already scheduled on the system at the Palo Verde  
22      Hub (Id.; see also Exhibit A-29 at ii). Furthermore, the SIS did not take into account the proposed  
23      8,000 MW of generation to interconnect at the Palo Verde Hub. (Tr. at 1297, 1299). Because the SIS  
24      did not take into account the future generation proposed to interconnect at the Palo Verde Hub, the  
25      study failed to pick up stability limitations that mandates the transmission improvements out of the  
26      hub (Tr. at 1299-1302). In short, the scope of the SIS in Exhibit A-29 is internal to SCE and the  
27      California Independent System Operator ("CAISO") systems; the studies are not looking at the  
28      interconnected transmission system. (Tr. at 1302). Only an integrated system impact study will  
29      accurately identify transmission improvements needed so as not to adversely impact the Arizona  
30      system. (Tr. at 1303-04). In addition, the SIS allows the use of remedial action schemes for single

<sup>2</sup> Currently cited in the official Supreme Court Reporter as 535 U.S. \_\_\_\_ (2002).

<sup>3</sup> In addition to Mr. Jerry Smith's testimony, Staff's concerns are also explained in "Allegheny Power Project - ACC Staff Transmission Assessment", admitted as Exhibit S-3.

1 contingency outages, which is contrary advocated by Staff and required of all other Arizona plants.  
2 (Tr. at 1296-97; Exhibit A-29 at iv[6]). In short, Exhibit A-29, when final, and the accompanying  
3 facilities study will not address much of the concerns Staff testified to in this case. As a result,  
4 improvements undertaken by SCE funded by Applicant will likely be insufficient to ensure a reliable  
5 and secure Arizona system<sup>4</sup>.

6 The bottom line is that due to stability limitations already noted at the Palo Verde Hub,  
7 Applicant's proposed project would strand additional generation (Tr. at 1305-06). This runs contrary  
8 to Staff's aims to ensure an adequate, reliable and secure system, which will ultimately supply  
9 Arizona consumers with the most economical power. (Tr. at 1348, 1380). The projects proposing to  
10 interconnect at the hub are the cleaner, more efficient plants (Tr. at 1347). Given the movement  
11 towards electric restructuring in Arizona, the goal is to ensure that a healthy market exists such that  
12 all competitors have access to buyers. (Tr. at 1396-97). Mr. Smith summarizes this concern as  
13 follows:

14 The reality is that if additional transmission enhancements do not occur out of the Palo  
15 Verde Hub beyond what we've talked about today, moving forward with the La Paz  
16 project would mean that we're guaranteeing that more expensive generation that is  
17 high polluting generation would be operational in Arizona than would necessarily  
18 occur if there was the opportunity for all of the generation that the Palo Verde Hub  
19 could generate. That is not a good market environment. It's one that is  
20 environmentally flawed and it's cost effectively flawed because it has the most costly  
21 generation operational, and at the whims of a party that has blocked the opportunity  
22 for other competing plants.

23 (Tr. at 1398-99).

24 To ensure a healthy competitive market, all generators must have the ability to compete and have  
25 open access to the transmission to deliver to buyers in a market. (Tr. at 1397). The marketplace,  
26 transmission, must be big and stable enough to accommodate all competitors. Staff wants to ensure  
27 that the La Paz project does not sacrifice that aim (Tr. at 1397-98). Right now, that technical study  
28 work has not been performed. Without that technical study evidence looking at the Arizona system,  
Staff cannot ensure no adverse impacts to the system exist. As a result, the La Paz project poses a

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<sup>4</sup> As Mr. Smith points out in redirect examination, the situation here is different than what existed during the Arlington Valley - Duke II ("Case No. 117") proceedings. In that case, Staff had the technical study evidence from WATS showing the impacts on the Palo Verde Hub and showing that the upgrades would achieve the objective of enhancing transmission by the equivalent of total generating capacity. (Tr. 1394-95). Here, that study work does not exist. (Tr. at 1396).



1 threat to the system and to ensuring adequate and reliable power to the consumer.

2 Applicant might counter with a variety of arguments in attempt to assuage Staff's  
3 apprehension about the La Paz project. For one thing, Applicant will note that the SIS studies are but  
4 one half of the equation and that a facilities study is mandatory to determine how the problems noted  
5 in the SIS study are to be addressed. (Tr. at 467-69, 523-27, 1013, 1024). Applicant will point out  
6 that SCE and CAISO will require them to invest in facilities that were outlined in order to be allowed  
7 to interconnect. (Tr. at 1014). As a result, it is Applicant's argument that the system will not be  
8 compromised, due to SCE mandating that Applicant fund the upgrades prior to interconnection (Tr. at  
9 1014, 1024, 1079-82). Furthermore, Applicant stated, and Staff agreed, that Applicant approached  
10 the right entities in order to interconnect. (Tr. at 1335-36). However, the problem that still remains is  
11 that because the *integrated system* was not studied, the full impacts of the La Paz project's  
12 interconnection on the Arizona system cannot be known. All upgrades identified in the facilities  
13 study by SCE would not solve the stability limitations outlined by Staff here because those variables  
14 were never considered as part of the SIS studies. (Tr. at 1299-1302, 1344, 1395-96). While Applicant  
15 might point to projects proposed to interconnect at the Palo Verde Hub that might not be built, future  
16 transmission projects face the same uncertain future (Tr. at 1379-80). The fact remains is that  
17 regardless of the ultimate outcome of other projects, the studies undertaken by SCE for Allegheny  
18 fail to consider impacts on the Arizona system. Finally, while counsel for Applicant indicated that a  
19 study plan will be presented to Western Area Transmission Systems group ("WATS") regarding  
20 interconnection, that study would have to include concerns outlined by Staff and ensure no adverse  
21 impacts to the Arizona system. (Tr. 1337-38)<sup>5</sup>.

22 Mr. Don Mundy testified in Applicant's rebuttal case about the peer review process. He  
23 indicated that WATS and other groups will review the study plan, make comments, and approve the  
24 plan. (Tr. at 1593-1600). As he states, "utilities don't like people to mess around with reliability."  
25 (Tr. at 1596). However, while peer reviews from various groups will be undergone prior to the final  
26 reports being issued, it is tenuous whether SCE will incorporate those comments and whether those

27  
28 <sup>5</sup> While Staff acknowledges its concern regarding constraints would be alleviated if the WATS study included the concerns of Staff, the issue of development of commercial hubs would still remain outstanding. (Tr. at 1338).

1 comments will include the concerns Staff has raised here<sup>6</sup>. More importantly, the standard for  
2 reliability for the utilities differs from what Staff is monitoring. As Mr. Mundy put it earlier in his  
3 testimony, the TPs are likely looking out to see that there are no adverse impacts to their physical  
4 system. (Tr. at 1079). This standard is different from Staff's aim to ensure that the system is  
5 adequate in that it does not displace apriori generation and will ensure that consumers receive the  
6 most economical power available (See BTA at 3). As stated above, the studies as they exist do not  
7 address that aim and still will likely be inadequate from Staff's perspective. As Mr. Mundy  
8 acknowledged in answering questions from Chairman Woodall, the peer group comments might not  
9 reflect those concerns of Staff. (Tr. at 1680-81).

10 To summarize, Staff does not believe that the SIS study performed by SCE (Exhibit A-29)  
11 takes into account the impacts on the Arizona system. Staff has no guarantee that the peer review  
12 process will incorporate its concerns. Therefore, Staff cannot support the project.

13 **THE ISSUE BEFORE THIS COMMISSION CANNOT BE LEFT TO MARKET FORCES**  
14 **EXCLUSIVELY**

15 In Applicant's rebuttal case, Mr. Kevin Geraghty brings up the point that the La Paz project  
16 will be able to compete in the marketplace in Arizona (Tr. at 1632-35). Mr. Geraghty disagrees with  
17 the notion that there must be one megawatt of transmission for one megawatt of generation because  
18 market forces will ensure the cheapest power gets to market (Tr. at 1635-36). He also states La Paz  
19 will not be big enough to exert market power (Tr. at 1636). However, the issue has never been  
20 whether La Paz itself can or cannot deliver to market. Clearly, the evidence leads one to believe that  
21 La Paz can and will be able to deliver. However, the bigger question concerns the impact on the  
22 marketplace itself should La Paz interconnect.

23 Staff's whole aim in this case, as in other cases, is to assure that sufficient transmission  
24 capacity exists so that Arizona consumers are the beneficiaries of the most economical sources for

25 \_\_\_\_\_  
26 <sup>6</sup> The groups that will review those studies include WATS, Southwestern Regional Transmission Authority (SWRTA)  
27 and WSCC. (Tr. at 1013, 1061-62). Some of these groups are comprised of members that include Arizona Public Service  
28 ("APS") and Salt River Project ("SRP"), as well as other the TPs. (Id.). Even though Arizona TPs can comment on the  
studies through these various groups, the SCE may or may not take those comments into account when revising the  
reports. To what degree Staff's concerns here are reflected in those comments from the Arizona TPs is uncertain.  
Finally, SCE might be hesitant to include generation outside of what is within the CAISO side of the system, regardless of  
Staff's concerns that might be echoed during those peer reviews (See Tr. at 1094-96).

1 power. What that means is that the most efficient, least polluting combination of plants be able to  
2 gain access to the markets. Staff's aim is to generate a healthy marketplace so that the most  
3 economical power shall be available for use by the retail consumer. In other words, the goal is to  
4 ensure that all efficient plants have access to the marketplace. In the wholesale electricity market,  
5 transmission is the marketplace. As Mr. Smith of Staff testified, "competition from a resource  
6 perspective does not necessarily mean that you eliminate another plant from operating because  
7 someone else may be needing that power." (Tr. at 1276). Furthermore, if we are to assume that La  
8 Paz is the most efficient, least polluting alternative, the market would benefit from La Paz competing  
9 with the second, third and fourth most efficient plants as well as the thirteenth, fourteenth, and  
10 fifteenth most efficient plants. The danger Staff is alerting of is that the impacts of La Paz on the  
11 system might artificially prevent the second, third, and fourth most efficient plants from competing  
12 with anyone, so that La Paz will be competing with plants significantly less efficient. This could  
13 prevent Arizona consumers from receiving the most economical power.

14 To use an empirical example, suppose Arizona needs 10,000 megawatts ("MW") of power  
15 and can only get 9,000 MW. Obviously, Arizona would need an additional 1,000 MW. Suppose a  
16 plant proposes to be built at Location A, but will prevent 1,000 MW at Location B from gaining  
17 access to transmission and from being able to ultimately get to Arizona customers. If 1,000 MW of  
18 new generation prevents 1,000 MW from being delivered, then Arizona only has access to 8,000  
19 MW. Therefore, while Arizona has a need for 1,000 MW of power, a 1,000 MW plant at location A  
20 does nothing to improve need because it displaces 1,000 MW from Location B. If that plant from  
21 Location A adversely impacts the system from a reliability perspective, Arizona would suffer a net  
22 negative.

23 Expanding on the hypothetical above, now suppose Arizona has access to all 10,000 MW it  
24 needs. However, all of this 10,000 MW of this generation is the more inefficient high polluting  
25 generation within a load pocket at Location C. Now suppose 2,000 MW at Location B is sited and is  
26 the second most efficient power available, certainly significantly more efficient than the slop being  
27 produced at Location C. Now suppose the 1,000 MW at Location A is the most efficient power, but  
28 will prevent the 2,000 MW at Location B from gaining access to the transmission. Arizona would

1 still have 10,000 MW of power, but it would not be the most efficient combination of power  
2 available. Furthermore, having the 1,000 MW at Location A with 9,000 MW at Location C could  
3 likely be less efficient and therefore, less economical than having 2,000 MW at Location B with only  
4 8,000 MW from Location C. In short, while Arizona could certainly use the 1,000 MW of maximum  
5 efficient power, reliability-wise the negatives from having that power generated and accessing  
6 transmission from Location A outweigh the positives of having the 1,000 MW power itself. The  
7 hypothetical above illustrates the potential threat posed by the La Paz project to a robust competitive  
8 market.

9 Staff believes that this issue it presented before the Committee is a reliability issue as defined  
10 by Staff and under the auspices of this Commission. Market forces are not going to solve the  
11 transmission crunch and are not going to ensure system reliability and security by itself. Staff  
12 believes that not only does the Commission have the authority under A.R.S. § 40-360.07(B) to look  
13 at these factors, but also that looking at these factors is essential to protect the Arizona consumer.  
14 This is not an issue of improper actions by Applicant or the result of some devious scheme employed  
15 by them. This is simply an issue of ensuring what is best for Arizona through the siting process. For  
16 those reasons, Staff believes the issue goes beyond that of market forces.

17 **IT IS WITHIN THE JURISDICTION OF THIS COMMISSION TO LOOK AT**  
18 **RELIABILITY IMPACTS ON THE ARIZONA SYSTEM**

19 Throughout the hearings, the jurisdictional argument was raised as to how appropriate it is for  
20 the Commission to consider these reliability concerns that tie into interconnection issues governed by  
21 the Federal Energy Regulatory Commission ("FERC"). Several of the Committee members  
22 expressed concern that these issues of reliability are better taken up by the Commission rather than  
23 the Committee (Tr. at 1732-34). There was significant debate between the parties and amongst  
24 members of the Committee over whether and/or how to consider issues of reliability by the  
25 Committee and to what degree are the issues raised by Staff better suited for the Commission and/or  
26 FERC. Staff believes that the Committee could consider such reliability issues when looking at the  
27 total environment of the area and the technical practicability of achieving a proposed objective under  
28

1 A.R.S. §§ 40-360.06(6) and (7). (Tr. at 1262-63, 1724-28)<sup>7</sup>. However, it was unclear whether the  
2 Committee as a whole shared the same assessment. Before the Commission, the issue of whether the  
3 Committee can or cannot consider need becomes moot because of A.R.S. § 40-360.07(B).

4 The issue here, for Staff, is not that the Committee made an arbitrary decision. Rather,  
5 because the Committee struggled with whether and how to weigh reliability issues raised by Staff in  
6 this case, the Commission can and should revisit the issues raised by Staff. These issues of  
7 transmission reliability and access to more economical and less polluting generation are vital  
8 components of analyzing the need for reliable generation under A.R.S. § 40-360.07(B). Regarding  
9 the jurisdictional argument, while the Commission does not have the authority to approve or  
10 disapprove the actual interconnections governed by the FERC, this Commission clearly has the  
11 authority to approve of the *siting* of power generation. Staff's definition of reliability per the BTA  
12 requires that a plant must be able to deliver without displacing apriori generation and without the use  
13 of remedial action schemes. (Tr. at 1272-74). Therefore, this Commission has the authority to  
14 examine reliability impacts of an interconnection as it applies to siting of generation and  
15 transmission.

16 **SHOULD THE COMMISSION DECIDE TO APPROVE THE CEC, STAFF'S CONDITIONS**  
17 **ARE NECESSARY TO AMELIORATE RELIABILITY CONCERNS OUTLINED BY STAFF**

18 Should the Commission decide to approve the CEC granted by the Committee, Staff strongly  
19 advocates adopting the conditions detailed in Appendix A. While those conditions do not alleviate  
20 Staff's concerns about the La Paz project, the conditions focus on the issues at the heart of Staff's  
21 position. The Committee did not decide to adopt these conditions, perhaps out of an indication that  
22 such reliability issues are better left for the Commission's discretion.

23 Mr. Jerry Smith of Staff discussed the conditions that Staff proposed before the Committee  
24 and which are before the Commission here. Staff Condition Nos. 8, 11, and 41 proposed here in  
25 Appendix A deal with the issue of constraints at the Palo Verde Hub; the first of Staff's two major  
26 issues in this case. Those conditions were originally submitted as Exhibit S-4 and are reproduced  
27 here as Appendix A, with language conforming to what was discussed in hearings before the

28 <sup>7</sup> Applicant disagreed with Staff's position during the hearings (Tr. at 1265-66).

1 Committee. Staff's Condition No. 11 was to ensure that any proposed interconnection to the system  
2 by the La Paz project took into account proposed projects already approved by this Commission and  
3 that the Arizona system was protected from adverse impacts. (Tr. at 1306-07). It is an effort from  
4 Staff to bring all affected parties to the table and to look at the total impacts beyond what is looked at  
5 in the technical studies performed by SCE. (Tr. at 1309)<sup>8</sup>. Staff's Condition No. 41 is to ensure that,  
6 as close as possible to actual operation, technical studies are performed to show that the plant can run  
7 in accordance with WSCC criteria. (Tr. at 1316-17)<sup>9</sup>.

8 Staff also discussed the two-line issue as part of its case. Staff's Condition No. 8 advocates  
9 two separate transmission lines from the plant switchyard to the electric grid. Mr. Smith testified as to  
10 why two separate lines to the plant conforms to best engineering practices. Staff has consistently  
11 advocated for two lines since the Red Hawk case. (Tr. at 1285). This has always been a system  
12 reliability issue for Staff (Tr. at 1286). Mr. Smith testified that two separate lines would maintain  
13 system reliability, specifically that the spinning reserve requirements of purchasers would not  
14 increase. (Tr. at 1286-88) Spending the money to build a second line in the present will keep the  
15 reserve requirement at the same level. (Tr. at 1288). With one line coming to and from the La Paz  
16 plant, the reserve requirement would equal the total output of the plant (nominally 1,080 MW), since  
17 the plant would become the single largest hazard on the PV/D line. (Tr. at 1287). This will lead to  
18 higher costs for maintaining a higher annual spinning reserve requirement. (Tr. at 1288). With two  
19 lines coming to and from the plant, the reserve requirement does not increase because the largest  
20 single hazard would not be augmented. (Tr. at 1287-88). Staff's Condition No. 8 ensures system  
21 reliability, regardless of the debate over consolidation of facilities. Staff's Condition No. 8 is  
22 necessary towards maintaining overall system security in Arizona<sup>10</sup>.

23  
24  
25 <sup>8</sup> The original Condition No. 11 proposed by Staff had such a study approved by the Palo Verde Engineering and  
26 Operations ("E&O") Committee (See Exhibit S-4). Upon reflection, Mr. Smith revised that condition slightly to reflect a  
27 peer review process more from an Arizona perspective (Tr. at 1326). Taking that into account, the revised Staff  
28 Condition No. 11, in Appendix A, indicates WATS to be the body approving such a study.

<sup>9</sup> In Exhibit S-4 before the Committee, this condition was cited as Staff's Condition No. 40.

<sup>10</sup> This is especially pertinent given that in other cases, Applicants who formerly fought the two-line condition have now  
subsequently requested that they be allowed to build a second separate line in and out of their plant. Furthermore, while  
there may be additional tax implications, as Applicant alludes to in their rebuttal, Staff would maintain that the overall  
issue should be on ensuring system reliability, rather than costs to the Applicant.

1 Finally, Staff's Condition No. 12 addresses the second major issue at the heart of Staff's case;  
2 how big should the Palo Verde Hub be? Mr. Smith expressed concern that the Palo Verde Hub was  
3 getting too large, but that studies should be undertaken to determine what standards should be  
4 imposed (Tr. at 1281). This was an issue brought up in past cases by Staff. (Tr. at 1259). Staff's  
5 Condition No. 12 would require Applicant to address this concern as part of a larger body and to  
6 participate in making improvements to the security and reliability of the Palo Verde Hub. (Tr. at  
7 1314). Because the issue of the size of Palo Verde Hub needs to be addressed for security and  
8 reliability reasons, and has yet to be adequately addressed, Staff would still advocate that the CEC be  
9 denied. However, at the very least, Applicant would be obliged to participate in the study work and  
10 contribute funds towards improvements and upgrades beyond what is determined in SCE facilities  
11 studies, if determined to be necessary.

## 12 CONCLUSION

13 Staff wants to ensure that Arizona consumer receives the benefits of a robust market. To do  
14 so, the marketplace must be sufficient enough to allow access from the best combination of efficient  
15 plants. As it stands now, the La Paz project leaves too many uncertainties to ensure that the Arizona  
16 system reliability is preserved. The size of the Palo Verde Hub has not been addressed to date and  
17 must be to ensure continued system security and reliability. Staff's focus on system reliability of the  
18 transmission system is consistent with its focus in past cases. The CEC granted by the Committee  
19 does not ensure that the Arizona system reliability will be preserved. The Commission should deny  
20 the CEC granted by the Committee.

21 If the Commission decides to approve the CEC, Staff strongly advocates adopting Staff's  
22 proposed conditions in Appendix A which addresses the concerns Staff raised before the Committee.

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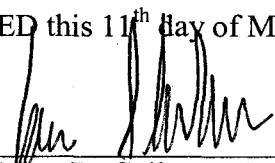
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1           These conditions would assure that the La Paz project does not adversely impact the system.  
2 For those reasons, Staff would respectfully request that the Commission adopt all of the proposed  
3 conditions in Appendix A, should the Commission decide to approve the CEC.  
4

5                           RESPECTFULLY SUBMITTED this 11<sup>th</sup> day of March, 2002.

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7   
8 \_\_\_\_\_  
9 Jason D. Gellman, Attorney  
10 Legal Division  
11 Arizona Corporation Commission  
12 1200 West Washington Street  
13 Phoenix, Arizona 85007  
14 Telephone: (602) 542-3402  
15 Facsimile: (602) 542-4870  
16 e-mail: jgellman@cc.state.az.us

14 Pursuant to R14-3-204 the  
15 ORIGINAL and twenty-five  
16 copies were filed this 11<sup>th</sup> day of  
17 March, 2002 with:

18 Docket Control  
19 Arizona Corporation Commission  
20 1200 West Washington Street  
21 Phoenix, Arizona 85007

22 COPY of the foregoing was  
23 mailed/hand-delivered this 11<sup>th</sup>  
24 day of March, 2002, to:

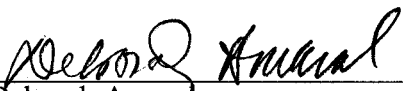
25 Laurie Woodall, Esq.  
26 Office of the Attorney General  
27 1275 West Washington Street  
28 Phoenix, AZ 85007-2997

Michael M. Grant, Esq.  
Todd C. Wiley, Esq.  
Gallagher & Kennedy  
2575 East Camelback Road  
Phoenix, AZ 85016-9225

James D. Vierreg, Esq.  
Morrison & Hecker, L.L.P.  
2800 North Central Avenue, Suite 1600  
Phoenix, AZ 85004-1047



1 Marc D. Joseph, Esq.  
2 Mark R. Wolfe, Esq.  
3 Adams, Broadwell, Joseph & Cardozo  
4 651 Gateway Blvd, Suite 900  
5 South San Francisco, CA 94080  
6 (Arizona Unions for Reliable Energy)

7  
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Deborah Amaral

## **APPENDIX A**

### **STAFF'S PROPOSED CONDITIONS FOR MODIFICATION OF THE CEC**

## STAFF'S PROPOSED CONDITIONS FOR MODIFICATION OF THE CEC

8. Applicant shall build two transmission lines connecting the Applicant's plant switchyard to the transmission grid on separate structures separated by a minimum of 200 feet.

*(To substitute for Condition No. 8 in the CEC granted by the Committee)*

11. Prior to construction of any facilities, Applicant must provide Staff a Detailed Planning Study report, reviewed and approved by the WATS Committee, demonstrating that the proposed Allegheny project has "no adverse impact" on the existing or planned Arizona transmission system and no adverse impact on the ability of existing or planned generation, with an ACC approved CEC, interconnecting at the Palo Verde Hub to deliver to their markets. If transmission improvements are required to achieve such technical demonstration, Applicant agrees to participate in the funding of such required facilities and ensure that construction of such facilities precedes occurrence of known transmission reliability and system security problems. Failure of such study to demonstrate a condition of "no adverse impact" on Arizona transmission and generation facilities shall result in Applicant's CEC being null and void.

*(To substitute for Condition No. 11 in the CEC granted by the Committee)*

12. Applicant agrees to participate in all future workshops and technical studies regarding the reliability and system security of the Palo Verde Hub. Furthermore, Applicant agrees to participate in funding of any and all transmission upgrades deemed necessary by Arizona transmission providers and Commission Staff to bring the Palo Verde Hub to the level of reliability and system security determined appropriate for a large commercial hub.

*(To substitute for Condition No. 12 in the CEC granted by the Committee)*

40. The Applicant, its successor(s) or assign(s) shall submit a self-certification letter annually listing which conditions contained in the CEC have been met. Each letter shall be submitted to the Utilities Division Director on August 1, beginning in 2002, describing conditions which have been met as of June 30. Attached to each certification letter shall be documentation explaining, in detail, how compliance with each condition was achieved. Copies of each letter, along with the corresponding documentation shall also be submitted to the Arizona Attorney General and the Directors of the Department of Environmental Quality, Department of Water Resources and Department of Commerce Energy Office.

*(This condition is the same as Condition No. 40 in the CEC granted by the Committee, except for the fact that it adds the Arizona Department of Environmental Quality to the list of state agencies where a self-certifying letter shall be sent).*

41. Applicant shall provide the Commission with a Palo Verde Transmission System E&O approved operational study report not more than 90 days preceding and not less than 60 days preceding commercial operation of its power plant. That study shall demonstrate

that sufficient transmission capacity exists at the Palo Verde Hub to accommodate the plant without reliance on remedial action schemes for single contingency outages. The studies shall model the Applicant's plant overlaid with all other power plants expected to be in operation and interconnected to the Palo Verde Hub prior to Applicant's plant. Failure of such studies to demonstrate the required reliable operation with Applicant's plant will result in suspension of commercial operation of Applicant's plant until needed transmission system improvements are made and the intent of this condition is satisfied.

*(To be added to the CEC as Condition No. 41)*

## **APPENDIX B**

### **ARIZONA EHV TRANSMISSION**



# Arizona EHV Transmission

